

IN THE CLAIMS:

Please cancel Claims 1-3 without prejudice to or waiver of the subject matter contained therein.

Claims 1 to 13 have been cancelled herein.

Please add Claims 14-30 as follows:

--14. (New) A substrate processing system, comprising:

a first processing device which is covered by a process chamber and adapted to process a substrate with a first process in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate which has been processed with a second process by a second processing device and a substrate which is to be processed with the second process by the second processing device;

a load-lock chamber having a substrate transfer path between the first processing device and the transfer device; and

a gas supply device which supplies the first gas from the process chamber to the load-lock chamber when the substrate is transferred between the load-lock chamber and the first

processing device, and supplies the second gas from the clean booth to the load-lock chamber when the substrate is transferred between the load-lock chamber and the transfer device.

15. (New) The system according to claim 14, further comprising:

an exhaust device which exhausts the load-lock chamber; and

a gas circulator which circulates the first gas to the process chamber when the first gas supplied from the process chamber to the load-lock chamber is exhausted, and circulates the second gas to the clean booth when the second gas supplied from the clean booth to the load-lock chamber is exhausted.

16. (New) An exposure processing system, comprising:

an exposure device which is covered by a process chamber and adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate coated with a photosensitive agent by a coater and a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device; and

a gas supply device which supplies the first gas from the process chamber to the load-lock chamber when the substrate is transferred between the load-lock chamber and the

exposure device, and supplies the second gas from the clean booth to the load-lock chamber when the substrate is transferred between the load-lock chamber and the transfer device.

17. (New) A device manufacturing method, comprising:

exposing a substrate using the exposure processing system comprising

an exposure device which is covered by a process chamber and adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate coated with a photosensitive agent by a coater and a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device; and

a gas supply device which supplies the first gas from the process chamber to the load-lock chamber when the substrate is transferred between the load-lock chamber and the exposure device, and supplies the second gas from the clean booth to the load-lock chamber when the substrate is transferred between the load-lock chamber and the transfer device; and

developing the exposed substrate using a developer.

18. (New) A substrate processing system, comprising:

a first processing device which is covered by a process chamber and adapted to process a substrate with a first process in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate which has been processed with a second process by a second processing device and a substrate which is to be processed with the second process by the second processing device;

a load-lock chamber having a substrate transfer path between the first processing device and the transfer device; and

a gas supply device having a valve arranged to switch gas supply paths, the gas supply device supplying the first gas to the load-lock chamber through a first gas supply path when the substrate is transferred between the load-lock chamber and the first processing device, and supplying a dry gas from a dry gas supply source to the load-lock chamber through a dry gas supply path when the substrate is transferred between the load-lock chamber and the transfer device.

19. (New) The system according to claim 18, further comprising:

an exhaust device which exhausts the load-lock chamber; and

a gas circulator which circulates the first gas to the process chamber when the first gas supplied through a gas supply path arranged from the process chamber to the load-lock chamber is exhausted.

20. (New) An exposure processing system, comprising:

an exposure device which is covered by a process chamber and adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate coated with a photosensitive agent by a coater and a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device; and

a gas supply device having a valve arranged to switch gas supply paths, the gas supply device supplying the first gas to the load-lock chamber through a first gas supply path when the substrate is transferred between the load-lock chamber and the exposure device, and supplying a dry gas from a dry gas supply source to the load-lock chamber through a dry gas supply path when the substrate is transferred between the load-lock chamber and the transfer device.

21. (New) A device manufacturing method, comprising:

exposing a substrate using an exposure processing system comprising

an exposure device which is covered by a process chamber and adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate coated with a photosensitive agent by a coater and a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device; and

a gas supply device having a valve arranged to switch gas supply paths, the gas supply device supplying the first gas to the load-lock chamber through a first gas supply path when the substrate is transferred between the load-lock chamber and the exposure device, and supplying a dry gas from a dry gas supply source to the load-lock chamber through a dry gas supply path when the substrate is transferred between the load-lock chamber and the transfer device; and

developing the exposed substrate using a developer.

22. (New) A load-lock chamber having a substrate transfer path between a first gas atmosphere and a second gas atmosphere, the load-lock chamber comprising:

a first gate valve through which a substrate is transferred between the first gas atmosphere and the load-lock chamber;

a second gate valve through which a substrate is transferred between the second gas atmosphere and the load-lock chamber; and

a gas supply mechanism which supplies the first gas and the second gas to the load-lock chamber,

wherein the gas supply mechanism is arranged to supply the second gas to the load-lock chamber when the first gate valve is closed and the second gate valve is opened during the substrate being transferred between the second atmosphere and the load-lock chamber.

23. (New) A substrate processing system, comprising:

a first processing device which is covered by a process chamber and adapted to process a substrate with a first process in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate which has been processed with a second process by a second processing device and a substrate which is to be processed with the second process by the second processing device;

a load-lock chamber having a substrate transfer path between the first processing device and the transfer device, the load-lock chamber comprising a first gate valve through which a substrate is transferred between the process chamber and the load-lock chamber and a second gate valve through which a substrate is transferred between the clean booth and the load-lock chamber; and

a gas supply mechanism which supplies the first gas and the second gas to the load-lock chamber,

wherein the gas supply mechanism is arranged to supply the second gas to the load-lock chamber when the first gate valve is closed and the second gate valve is opened during the substrate being transferred between the load-lock chamber and the transfer device.

24. (New) An exposure processing system, comprising:

an exposure device which is covered by a process chamber and is adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate coated with a photosensitive agent by a coater and a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device, the load-lock chamber comprising a first gate valve through which a substrate is transferred between the process chamber and the load-lock chamber and a second gate valve through which a substrate is transferred between the clean booth and the load-lock chamber; and

a gas supply mechanism which supplies the first gas and the second gas to the load-lock chamber,

wherein the gas supply mechanism is arranged to supply the second gas to the load-lock chamber when the first gate valve is closed and the second gate valve is opened during the substrate being transferred between the load-lock chamber and the transfer device.



25. (New) A device manufacturing method, comprising:

exposing a substrate using an exposure processing system comprising

an exposure device which is covered by a process chamber and is adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate coated with a photosensitive agent by a coater and a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device, the load-lock chamber comprising a first gate valve through which a substrate is transferred between the process chamber and the load-lock chamber and a second gate valve through which a substrate is transferred between the clean booth and the load-lock chamber; and

a gas supply mechanism which supplies the first gas and the second gas to the load-lock chamber,

wherein the gas supply mechanism is arranged to supply the second gas to the load-lock chamber when the first gate valve is closed and the second gate valve is opened during the substrate being transferred between the load-lock chamber and the transfer device; and

developing the exposed substrate using a developer.

26. (New) A load-lock chamber having a substrate transfer path between a first gas atmosphere and a second gas atmosphere, the load-lock chamber comprising:

a gas supply pipe which supplies the first gas and the second gas to the load-lock chamber; and

a straightening plate provided at an entire upper portion of an interior space within the load-lock chamber to make the first gas and the second gas supplied through the gas supply pipe uniform flows.

27. (New) The load-lock chamber according to claim 26, wherein the straightening plate comprises a metal plate with a plurality of perforations formed therein.

28. (New) A substrate processing system, comprising:

a first processing device which is covered by a process chamber and adapted to process a substrate with a first process in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer one of a substrate which has been processed with a second process by a second processing device and a substrate which is to be processed with the second process by the second processing device;

a load-lock chamber having a substrate transfer path between the first processing device and the transfer device; and

a gas supply device which supplies the first gas and the second gas to the load-lock chamber,

wherein the load-lock chamber including a straightening plate provided at an entire upper portion of an interior space within the load-lock chamber to make the first gas and the second gas supplied through the gas supply device uniform flows.

29. (New) An exposure processing system, comprising:

an exposure device which is covered by a process chamber and is adapted to expose a substrate in a first gas atmosphere within the process chamber;

a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer a substrate coated with a photosensitive agent by a coater or a substrate to be developed by a developer;

a load-lock chamber having a substrate transfer path between the exposure device and the transfer device; and

a gas supply device which supplies the first gas to the load-lock chamber,

wherein the load-lock chamber comprises a straightening plate provided at an entire upper portion of an interior space within the load-lock chamber to make the first gas and the second gas supplied through the gas supply device uniform flows.

30. (New) A device manufacturing method, comprising:

exposing a substrate using the exposure processing system comprising

- an exposure device which is covered by a process chamber and is adapted to expose a substrate in a first gas atmosphere within the process chamber;
- a transfer device which is covered by a clean booth and is adapted to transfer a substrate in a second gas atmosphere within the clean booth, the transfer device being arranged to transfer a substrate coated with a photosensitive agent by a coater or a substrate to be developed by a developer;
- a load-lock chamber having a substrate transfer path between the exposure device and the transfer device; and
- a gas supply device which supplies the first gas to the load-lock chamber, wherein the load-lock chamber comprises a straightening plate provided at an entire upper portion of an interior space within the load-lock chamber to make the first gas and the second gas supplied through the gas supply device uniform flows; and

developing the exposed substrate using a developer.